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(54) Title of Invention: Waist Part or Neck Structure for Synthetic Resin Toy Doll

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Specification

1. Title of Invention

Waist Part or Neck Structure for Synthetic Resin Toy Doll

2. Scope of Patent Claim

A waist part or neck structure for synthetic resin toy doll in which the hollow body part on the waist part or the body part and the head part are connected as indicated below;

- (a) the body part of the waist part or the neck part on the body part and the head part are connected via a connecting member;
- (b) a swelling part which is provided with a spherical curved surface which is made of a vinyl chloride resin on at least one side of the shaft is formed on the connecting member;
- (c) an opening part which contains the swelling part of the aforementioned connecting member is formed on at least one of the aforementioned: the body part and the waist part or the neck part and the head part; at the same time, an abutment on the aforementioned swelling part is formed on the inside of this opening part.

3. Detailed Description of the Invention (Industrial Field)

The present invention refers to a structure for the waist part or the neck part of a synthetic resin toy doll in which the waist part is located on the body part of the doll or in which the head part for the neck part is located on the top of the body part, so that these can be moved freely forwards and backwards and from left to right.

(Description of the Prior Art)

Many structures are used for the waist part of a doll in which the waist part rotates to the left and right of the body part of the doll. However, since the waist part of humans and animals actually can move freely forwards and backwards and from left to right, consumers want a doll with a waist part that moves in the same way. If the waist part moves freely, the legs should also be flexible and move naturally and the doll should be more realistic. As a result, there have been proposals for a structure which would make it possible to move the leg parts freely. However, the prior-art structures are deficient in that they are too complex and cannot be used for small dolls or are soft and do not move naturally or they break easily. Meanwhile, the head part of the doll had a spherical swelling part which was disposed on the top end of the neck part on top of the body part and which was inserted from an opening part which was disposed on the lower part of this head part. By hooking the constricted part of the aforementioned swelling part on the opening part of the head part, the head part was connected to the neck part. However, in this type of structure, the neck part and the head part were connected directly so that the range in which the head part could be moved was limited and the movements were not natural.

(Problems Which the Present Invention Attempts to Resolve)

It is an object of the present invention to take into consideration the aforementioned situation and to propose a structure for the waist part or the neck part of a synthetic resin toy doll which makes it possible to move the head part freely relative to the body part and relative to the waist part or the neck part in any direction and which can increase the range in which these parts can be moved.

(Means Used to Resolve These Problems)

The waist part or neck part structure in the synthetic resin toy doll in the present invention is used as a technical means for resolving the aforementioned problems and the hollow body part or body part and head part are connected as indicated below.

- (a) The waist part and the body part or the neck part on top of the body part and the head part are connected via a connecting member.
- (b) the swelling part is formed on the connecting member so that it has a spherical curved surface which is formed of a vinyl chloride resin on at least the shaft part.
- (c) an opening part which is used to enclose the swelling part of the aforementioned connecting member on at least one of the aforementioned body part and waist part or neck part and head part. At the same time, the abutment of the aforementioned swelling part is formed on the inside of this opening part.

(Operations and Effectiveness of Invention)

As can be seen from the aforementioned structure, the waist part and the body part or the neck part and the head part are connected via a connecting member. The connecting member has an abutment which is disposed either on the waist part and the body part or on the neck part and the head part and makes contact with the spherical curved surface of the swelling part of the connecting member. As a result, the waist part can be moved so that it can turn in any direction relative to the body part or the head part can be moved so that it can turn in any direction relative to the neck part. In this case, the aforementioned swelling part is formed of a vinyl chloride so that it has outstanding adhesive properties and flexibility, it moves naturally and is soft to the touch.

(Practical Embodiments of the Invention)

Next, we will describe a practical embodiment of this device [sic] by referring to the figures.

Figure 1 (a) and (b) indicate a structure with the key parts in the synthetic resin toy doll A. This toy doll A is formed as follows. A hollow waist part 4 is connected to the bottom part of the opening part 2 which is disposed on the bottom part of the hollow body part 1 and is also connected via a connecting member 3.

The opening part 2 which is disposed on the bottom part of the body part 1 is round and at the same time bearing recessed parts 5 and 5 are formed on the front and rear surfaces in the schematic center on the inside part so that they form an integral piece. Meanwhile, a through hole 7 is opened on the upper part of the waist part and an abutment 6a is formed on the back side of the surrounding edge.

The connecting member 3 has a swelling part 9 which is provided with a spherical curved surface 9a on one end of the shaft 8 and at the same time support shaft parts 10 and 10 are disposed so that they protrude onto the other end. The aforementioned swelling member 9 has a part which is made of a vinyl chloride resin which is fixed to the shaft body 8, however, a member which is made of resin may be used so that it forms an integral piece with this shaft body 8. Further, this swelling piece 9 is semi-spherical, however, it may also be spherical as is indicated by the dotted line in Figure 1.

A swelling part 9 is inserted into one end of the connecting member 3 inside the abutment 6a on the waist part 4 of the aforementioned toy doll A. In this case, the swelling part 9 is made of a vinyl chloride resin so that it has outstanding adhesive properties and flexibility inside this abutment 6a. Meanwhile, the support shaft parts 10 and 10 on the other end of the connecting member 3 are inserted into the bearing recessed parts 5 and 5 which are disposed on the inside part of the body part 1. This makes it possible for the body part 1 and the waist part 4 to be connected.

The peripheral edge part 6 on the upper part of the waist part 4 of toy doll A can be moved freely in any direction along the inside surface of round opening part 2 which is formed on the bottom part of the body part 1. At the same time, the waist part 4 is retained by the swelling part 9 on the connecting member 3 so that the swelling part 9 slides on the abutment 6a of the waist part 4 and can be moved freely. As a result, the waist part 4 can move forward and backward, left and right in any direction relative to the body part 1 so that the range within which it can be moved is expanded. In this case, the swelling part 9 is made of a vinyl chloride resin so that it has outstanding adhesive properties and flexibility, natural movements and is soft to the touch.

Next, Figure 2 (a) and (b) indicate the structure of the neck part in the aforementioned synthetic resin toy doll A. This toy doll has a neck part 20 which is set so that it protrudes to the upper part of the body part 1 so that it forms an integral part and this neck part 20 and the head part 21 are connected by using the connecting member 20. Thus, this neck part 20 is hollow and has an opening peripheral edge part 22 which is formed on the front end.

The head part 21 is formed so that it is hollow. At the same time, a neck receiving recessed part which hooks onto an opening peripheral edge part 22 which is formed on the front end of the neck part 20 is formed on the bottom part. Thus, an opening part 24 is formed in the center of this neck receiving recessed part 23 and insertion recessed part 25a is formed inside this.

The connecting member 3 forms swelling parts 25 and 25a which have spherical curved surfaces on both ends so that the aforementioned spherical curved surfaces face each other. These swelling parts 25 and 25a fix [parts] made of a vinyl chloride resin to both ends of the shaft body 8, however, a [member] which is made of resin may be used to form an integral piece with this shaft body 8. In addition, the entire piece need not be spherical as long as the parts of the swelling part on both ends of the shaft body 8 which face each other are spherical.

The aforementioned neck part 20 and the head part 21 are connected by using a connecting member 3. This means that the connecting member 3 has a swelling part 25 which is disposed on one end of the shaft body 8 which is inserted into the insertion recessed part 24a on the aforementioned head part 21 and the swelling part 25a on the other end is inserted into the inside of the opening peripheral edge part 22 on the aforementioned neck part 20. As a result, the neck part 20 and the waist part 4 are connected securely.

According to the toy doll A indicated previously, the spherical curved surface of the swelling parts 25 and 25a on the connecting member 3 make contact with one another and are inserted inside the insertion recessed part 24a on the head part 21 and inside the opening peripheral edge part 22 on the neck part 20. Since the swelling parts 25 and 25a are made of a vinyl chloride resin, they have outstanding adhesive properties and flexibility, the head part 21 can be moved freely, they move naturally and are soft to the touch. In addition, since this connecting member 3 also moves, the range in which it moves can be expanded to whatever extent the shaft body 8 slants.

Further, the notation used in Figure 2 (a) and (b) is the same as that used in Figure 1.

4. Brief Explanation of Figures

Figure 1 (a) is a partial broken inclined view of the waist part structure in a practical embodiment of the synthetic resin toy doll. Figure 1 (b) is an enlarged sectional view of the important parts indicated in Figure 1(a). Figure 2 (a) is a partial broken inclined view of the structure of the neck part in a practical embodiment of the toy doll. Figure 2 (b) is an expanded sectional view of the important parts in Figure 2 (a).

Notation: A...toy doll; 1...body part; 3...connecting member; 4...waist part; 8...shaft body; 9, 25 and 25a...swelling parts

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Figure 2

(a)

(b)

Figure 1 (a)

Figure 1 (b)

WAIST AND NECK STRUCTURES OF DOLL TOY MADE OF SYNTHETIC RESIN

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Applicant(s):: TAKARA CO LTD
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Abstract

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審査請求 未請求 発明の数 1 (全4頁)

⑮ 発明の名称 合成樹脂製人形玩具の腰部又は首部構造

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明 細 書

1. 発明の名称

合成樹脂製人形玩具の腰部又は首部構造

2. 特許請求の範囲

中空の腰部の胴体部または胴体部と頭部とを下記のように連結して成ることを特徴とする合成樹脂製人形玩具の腰部又は首部構造。

(イ) 腰部と胴体部又は胴体部上部の首部と頭部とは連結部材を介して連結されていること。

(ロ) 連結部材には軸体の少なくとも一方に塩化ビニール樹脂によって成形された球面状曲面を有する膨出部を形成したこと。

(ハ) 上記胴体部と腰部又は首部と頭部には少なくともそれぞれそのどちらか一方に上記連結部材の膨出部を内装させるための開口部が形成されるとともに、この開口部の内側には上記膨出部の受面が形成されていること。

3. 発明の詳細な説明

(産業上の利用分野)

本発明は人形の胴体部に対して腰部、又は胴

体部上部の首部に対して頭部をそれぞれ前後、左右、おめに自由に動かすことができる合成樹脂製人形玩具の腰部又は首部構造に関する。

(従来技術)

一般に、人形の腰部は胴体部に対して左右方向に回動する構造のものが多い。ところで、実際の人間、動物の腰部は前後、左右等、あらゆる方向に自由に動くわけであるから、人形の腰部も同じように動く方が望ましく、この腰部が自由に動けば脚部の動きもしなやかで自然になり、よりリアル性が向上する。したがって、腰部を自由に動かすことができる構造のものが提案されたが、従来のものは構造が複雑になりす

ぎて小さな人形に利用できないほか、ソフトで自然な動きが得られなかったり、こわれやすかったりして実用化には難点がある。一方、人形の頭部は胴体部上部の首部の上端に設けた球状の膨出部をこの頭部の下部に設けた開口部より差し込み、上記膨出部のくびれ部を頭部の開口部に嵌合させることにより首部に頭部を連結

する構造のものがあつた。しかしながら、このような構造においては、首部と頸部が直接に連結されているから、頸部の可動範囲に限界があるとともに、自然な動きが得られない。

(発明が解決しようとする課題)

本発明は上記の事情に鑑みてなされたものであつて、特に簡単な構造によって胴体部に対して腰部又は首部に対して頸部をそれぞれ全方向に自由に自然に動かすことができるとともに、その可動範囲も大きくすることができる合成樹脂製人形玩具の腰部又は首部構造を提案することを目的とする。

(課題を解決するための技術的手段)

上記課題を解決するための技術的手段として、本発明に係る合成樹脂製人形玩具の腰部又は首部構造は、中空の胴体部又は胴体部と頸部とを下記のように連結して成ることを特徴とする。

(イ) 腰部と胴体部又は胴体部上部の首部と頸部とは連結部材を介して連結されていること。

(実施例)

以下、図面によって本考案の実施態様の一例について説明する。

第1図(a)、(b)は合成樹脂製人形玩具Aにおける腰部構造を示す。この人形玩具Aは中空の胴体部1の下部に設けた開口部2の下部にさらに連結部材3を介して中空の腰部4を連結して形成されている。

胴体部1の下部に設けた開口部2は円形状を有するとともに、その内部の略中央の前後面には軸受凹部5、5が一体に形成される一方、腰部4の上部には貫通孔7が開口され、その周縁部6の裏側には受面6aが形成されている。

連結部材3は軸体8の一端に球面状曲面9aを有する膨出部9が形成されるとともに、他端に支持軸部10、10が突設されている。上記膨出部材9は塩化ビニール樹脂によって成形されたものを軸体8に固定したものであるが、この軸体8と一体に樹脂成形したものであつてもよい。なお、この膨出部9は半球状に形成され

(ロ) 連結部材には軸体の少なくとも一方に塩化ビニール樹脂によって成形された球面状曲面を有する膨出部を形成したこと。

(ハ) 上記胴体部と腰部又は首部と頸部には少なくともそれぞれそのどちらか一方に上記連結部材の膨出部を内装させるための開口部が形成されるとともに、この開口部の内側には上記膨出部の受面が形成されていること。

(発明の作用、効果)

上記構成のように、腰部と胴体部又は首部と頸部とは連結部材を介して連結され、しかも連結部材は腰部と胴体部又は首部と頸部の少なくともどちらか一方にそれぞれ設けた受面は連結部材の膨出部の球面状曲面に接しているのので、腰部は胴体部に対して全方向に自由に、または頸部は首部に対して全方向に自由にそれぞれ可動させることができる。この場合、上記膨出部は塩化ビニール樹脂によって成形されたものであるから、密着性と弾性力に優れ、その動きが自然であるとともに、ソフト感が得られる。

ているが、第1図の点線で示すように球状にしてもよい。

上記人形玩具Aの腰部4の受面6a内には連結部材3の一端の膨出部9が嵌合されている。この場合、膨出部9は塩化ビニール樹脂によって成形されているので、この受面6a内での密着・弾力性に優れている。一方、連結部材3の他端の支持軸部10、10は胴体部1の内部に設けた軸受凹部5、5に嵌合されている。これによって、胴体部1と腰部4とが確実に連結される。

人形玩具Aの腰部4の上部の周縁部6は胴体部1の下部に形成された円形の開口部2の内周面に沿って全方向に自由に動くことができるとともに、腰部4は連結部材3の膨出部9によって保持されているので、膨出部9は腰部4の受面6aに密着し、円周に動くことができるから、腰部4は胴体部1に対して前後、左右、斜めのいかなる方向にも動くことが可能となり、その可動範囲は大きくなる。この場合、膨出部

9は塩化ビニール樹脂により成形されているので、密着性及び加力性に優れ、その動きも自然でソフト感を得られる。

次に、第2図(a)、(b)は上記合成樹脂製人形玩具Aにおける首部構造を示す。この人形玩具Aは胴体部1の上部に一体に首部20が突設され、この首部20と頸部21とは連結部材3によって連結されている。そして、この首部20は中空状でその先端には開口周縁部22が形成されている。

頸部21は中空に形成されているとともに、その下部には首部20の先端に形成された開口周縁部22が嵌り合う首受凹部23が形成されている。そして、この首受凹部23の中央には開口部24が形成され、且つその内側には嵌合凹部24aが形成されている。

連結部材3は軸体8の両端に球面状曲面を有する膨出部25、25aを上記球面状曲面を向き合せて形成したものである。この膨出部25、25aは塩化ビニール樹脂によって成形さ

れたものを軸体8の両端に固定したものであるが、この軸体8と一体に樹脂成形してもよい。また、全体が球状である必要はなく、軸体8の両端の膨出部の向き合う部分が球体であればよい。

上記首部20と頸部21は連結部材3によって連結されている。すなわち、連結部材3は軸体8の一端に設けられた膨出部25が上記頸部21の嵌合凹部24aに、他端の膨出部25aは上記首部20の開口周縁部22の内側にそれぞれ嵌合されている。これによって、首部20と頸部21とが確実に連結される。

上述のように人形玩具Aによれば、連結部材3の膨出部25、25aの球面状曲面は頸部21の嵌合凹部24aと首部20の開口周縁部22の内側にそれぞれ嵌合当接されており、且つ、この膨出部25、25aは塩化ビニールにより成形されているから、密着性及び加力性に優れており、頸部21は自由に動かすことができるほか、その動きも自然でリアル感を得られ

る。また、この連結部材3も動くから、軸体8が傾く分だけその可動範囲を大きくすることができる。

なお、第2図(a)、(b)において第1図と同符号は同部位を示すものである。

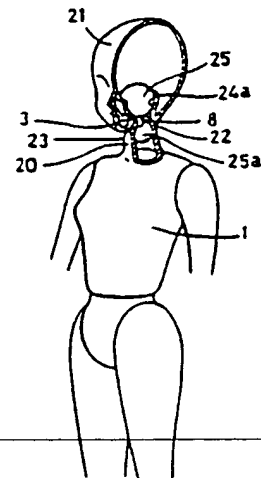
4. 図面の簡単な説明

第1図(a)は合成樹脂製人形玩具における腰部構造の実施態様の一例を示す一部破断した状態の斜視図、同図(b)は同図(a)の要部拡大断面図、第2図(a)は人形玩具における首部構造の実施態様の一例を示す一部破断した状態の斜視図、同図(b)は同図(a)の要部拡大断面図である。

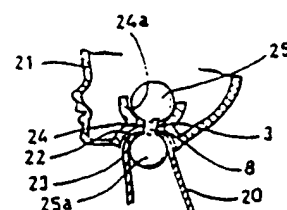
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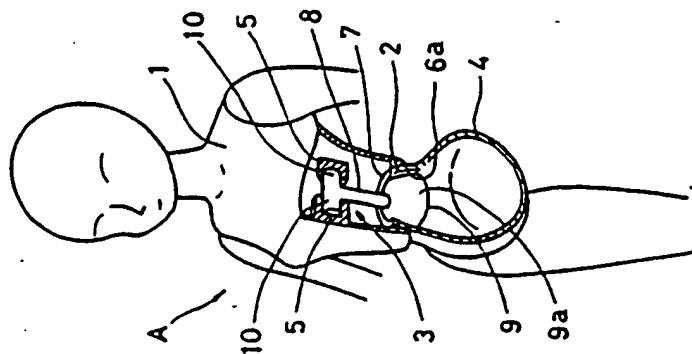
第2図
(a)



(b)



第 1 図
(a)



(b)

